

May 12, 2022

Vanessa A Countryman
Secretary
Securities and Exchange Commission
100 F Street NE
Washington DC 20549-1090

Subject: Impax Asset Management LLC Comment on SEC Proposed Rule, The Enhancement and Standardization of Climate-Related Disclosures for Investors, Release Nos. 33-11042; 34-94478; File No. S7-10-22

Dear Commissioner Gensler,

On behalf of Impax Asset Management LLC, we submit this letter commenting on the SEC's proposed rule on climate-related disclosures.

1. *Overall, this is a good and comprehensive rule.* We commend the SEC for proposing such a robust and comprehensive set of required disclosures. It is increasingly clear that climate-related risks are already material and are having major financial and economic consequences. These risks range from the company-specific to the systemic, which is why many of the world's largest central banks are also engaged in the Network for Greening the Financial System (NGFS), which focuses on creating an orderly transition to a low carbon future. The possibility that climate change could reduce global GDP by as much as 17%¹ if the problem is not effectively addressed is only one illustration of the magnitude of the systemic risk posed by climate change.
2. *The rule is in line with the SEC's mission.* We see the proposed rule as wholly in line with the SEC's historical mission, which includes ensuring that investors have the information they need to decide which risks to take and how much compensation they require for taking them. It may seem inconceivable now, but in the 1920s it took a market crash and a Depression to illustrate that investors need certain financial information to make informed decisions about investments. Then in the 1960s, the SEC began to require specific reporting about risk. Having had mandatory financial reporting now for nearly a century, we may tend to take it for granted, and many still look upon additional reporting as onerous and burdensome, but it is absolutely necessary. In fact, it has now been amply demonstrated that many elements not included within the scope of traditional financial reporting have significant consequences for financial performance, and that many of these elements can be anticipated, assigned probabilities and priced. The SEC is right to see climate change as a set of foreseeable risks that, if investors have the appropriate

¹ Natalie Marchant, "This Is How Climate Change Could Impact the Global Economy," World Economic Forum, June 28, 2021. [This is How Climate Change Could Impact The Global Economy | World Economic Forum \(weforum.org\)](https://www.weforum.org/articles/2021/06/28/this-is-how-climate-change-could-impact-the-global-economy/)

information, can be evaluated and priced to assist with the orderly operation of financial markets.

3. *The rule is challenging, but realistic.* We understand that reporting on climate risks will take some effort and expense, particularly in the beginning, during its phase-in. But not having this information is also costly, and probably far more costly than integrating climate risks into investment decisions.

In particular, we commend the SEC for the following:

- requiring disclosure of Scope 1 and Scope 2 emissions in absolute and relative terms.
- requiring assurance of emissions reporting for large and accelerated filers. We think it is reasonable for the SEC to phase in limited assurance in the beginning and then move to reasonable assurance over time.
- reporting of Scope 3 emissions if material, or if an emissions reduction target has been set that includes Scope 3.
- reporting of emissions of each greenhouse gas individually.
- reporting on the method of calculating and categorizing emissions, and material changes year over year.
- reporting on physical climate risk, including the impact of climate-related risks that are acute and chronic, and the locations of properties, processes, or operations subject to physical risk.
- requiring the information to be reported in annual and quarterly reporting, description of risk factors, and MD&A.
- aligning the recommended disclosure regime with that of the Task Force on Climate-Related Financial Disclosures (TCFD).
- Establishing appropriate phase-in periods for required reporting, with a longer phase-in period for more difficult reporting, such as Scope 3.
- Laying out a persuasive and comprehensive case for the financial materiality of climate change as a range of investment risks, and we believe the agency's cost/benefit analysis of the proposed rule is reasonable.

We do have some comments and suggestions that we believe would strengthen the proposed rule.

Reporting on Decarbonization Targets: Clarifying Offsets

We appreciate the proposed requirements that companies setting targets for greenhouse gas reductions report on what is covered, by scope, the time horizon(s) for attainment of targets, how the target is measured, and how the company plans to achieve its targets. We would also suggest that the SEC amend the proposed rule, or at least provide guidance to specify that the registrant disclose sufficient information about offsets needed to determine whether the offsets actually contribute to lower atmospheric carbon concentrations. The following attributes should be described:

1. **Permanence:** Some offsets may cease to reduce carbon concentrations under certain circumstances; for example, if afforestation is used as an offset, it should only be claimed

- once, and if the forest is burned or is degraded by insect infestations, the offset should be reduced accordingly.
2. Additional: Offsets should only be claimed if the project undertaken would not have happened without the registrant's funding. Moreover, investing in, for example, an existing forest does not provide additional carbon capture and storage and should not be counted as an offset after the initial investment.
 3. Duplication: If more than one entity funds an offset project, each entity should only claim its share of the emissions offset, not the entire amount. For example, if investors report on offsets, these should not duplicate the offsets already reported or claimed by companies in investment portfolios.
 4. Standards used: There are various certification and verification standards employed in assessing offsets. Companies should report which standards were used, and note whether the offsets are used in the context of mandatory or voluntary systems.

Reporting on Decarbonization Targets: Avoiding Disincentives and Context

Our concern with this part of the rule is that it might act to discourage companies from adopting emissions reduction targets. More than 2,800 companies already have science-based or net zero targets,² and this rule should not be a hindrance to other companies' target setting, if possible. Accordingly, we suggest that companies that do not choose to set emissions reduction targets at least be required to explain why they choose not to set them. We believe that information would help investors understand how a company approaches climate risks, even if the company's choice is not to reduce emissions.

It is abundantly clear from the most recent IPCC reports that the world must reach net zero emissions by midcentury to prevent truly catastrophic climate impacts, and at some point, every company will likely have to consider limiting its own emissions, so even companies with relatively small emissions will in the foreseeable future have to think about their own role in reducing climate risks.

However, the most efficient path to net zero by midcentury does not mean that every company must accomplish decarbonization on the same schedule; some of the industries that contribute the most to decarbonization may find it difficult to decarbonize their own value chains at the same rate as everyone else, but can more than compensate for these emissions through products that help everyone else reduce emissions.

Governments have key roles to play in establishing rules and mechanisms that incentivize emissions reduction, and those programs may not fall equally on all companies between now and 2050. Requiring that all companies provide insight into their choices with respect to decarbonization, and the programs that create transition risks, would be useful information for investors, even if some companies choose not to set decarbonization targets.

Clarifying Physical Risk

We commend the SEC for including physical risk reporting in the proposed rule, and for requiring disclosure of material physical risks, as well as the locations of assets subject to at least some physical risks, principally flooding and water stress. We urge the SEC to include reporting on the locations of

² Science Based Targets, "Companies Taking Action," n.d. [Companies taking action - Science Based Targets](#)

other assets that, if damaged or destroyed by other physical risks such as fire, severe storms and precipitation, or sea level rise, could impose material costs. We suggest that companies should disclose where their most vulnerable assets were by GPS co-ordinates; this information could then be used by the climate hazard models to identify the assets that face the highest exposure to physical climate risk. Without location data, mapped to company assets, it is almost impossible to accurately assess physical climate risk by region and calculate a company's value at risk from climate change. This is an emerging area of physical risk assessment, but with satellite data and improved climate models, it is an area that the SEC should consider in its ruling.

We appreciate the SEC clarifying what is meant by the term "physical climate risks" and including both acute and chronic risks in that definition. However, the first time this is mentioned (on page 45, first paragraph) in the proposed rule, the wording could be read as limiting physical risks only to "events." To avoid possible confusion, we suggest the wording be changed from "The impact of climate related events (severe weather events and other natural conditions as well as physical risks identified by the registrant)" to "The impact of climate-related events such as severe weather, and conditions like increased heat and sea level rise." Including "natural conditions" only in the parenthetical clause after "events" in the original wording could be misinterpreted to confine reporting only to one-time events rather than long-term conditions.

We also suggest that the rule include, as one of the chronic physical risks, the expansion of human and agricultural pests and diseases from tropical regions to temperate zones. We realize that the rule is not attempting to provide a complete census of every conceivable type of risk, but this is a major risk that should at least be mentioned,³ as many registrants are likely to look to the specific language of the rule as a guide for reporting, at least initially. This risk could apply to any company in the supply chains of food and fiber, any healthcare company, and any insurance or reinsurance company.

Defining Terms: Guidance on "Long Term"

On page 72, the proposed rule asks if any particular time period or range of years should be specified for the terms "short," "medium," and "long term." We believe the SEC should consider issuing guidance on what these terms mean in this context. In finance generally, especially in sell-side analysis, the term "long term" may be applied to anything exceeding three years in the future, while the World Bank notes that "long-term finance can be defined as any instrument with maturity exceeding one year."⁴ If there is no universally agreed upon definition, then perhaps the SEC rule should specify what it means by, or how it defines, these terms.

This is particularly pertinent to assessing vulnerability to physical risks. The IPCC reports make it clear that the probabilities of things like severe weather and precipitation, drought, cyclones, heat waves,

³ See, for example, Food and Agriculture Organization of the United Nations, "Scientific Review of the Impact of Climate Change on Plant Pests," IPCC Secretariat, 2021, [Scientific review of the impact of climate change on plant pests \(fao.org\)](https://www.fao.org/scientific-review-of-the-impact-of-climate-change-on-plant-pests); Skendžić, et al., "The Impact of Climate Change on Agricultural Insect Pests," *Insects* 12 (5), May 12, 2021, [The Impact of Climate Change on Agricultural Insect Pests - PMC \(nih.gov\)](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7811111/); Rachel E. Baker et al., "Infectious disease in an era of global change," *Nature Reviews Microbiology*, October 13, 2021, [Infectious disease in an era of global change | Nature Reviews Microbiology](https://www.nature.com/articles/s41579-021-01000-0); and Colin J. Carlson, et al., "Climate Change Increases Cross-species Viral Transmission Risk," *Nature*, Accelerated Article Preview, April 28, 2022, [Climate change increases cross-species viral transmission risk \(nature.com\)](https://www.nature.com/articles/s41586-022-03400-0).

⁴ The World Bank, "Long Term Finance," n.d. [Long Term Finance \(worldbank.org\)](https://www.worldbank.org/long-term-finance)

wildfire and flooding are increased significantly by climate change, but the probability that one of these events will occur in the next one- to three-year period is probably very low such that many registrants could simply opt out on reporting any increased vulnerability to such events. Considering that the depreciation periods of long-term assets like plant and equipment or buildings can be 30 or more years, it is reasonable to look at vulnerabilities over the longer time spans that form the context of climate modeling and forecasting. “Long term,” we suggest, should encompass events at least through midcentury.

Comprehensive Materiality and Safe Harbors

We believe the SEC was wise to propose that climate-related financial metrics be disclosed if the absolute value of all climate-related impacts (including expenses and costs) represents at least 1% of a particular line item in financial reporting. Too often, we have seen that companies take an atomistic approach to materiality, evaluating whether any specific event or impact is material on its own rather than taking a holistic view of the causes of material impacts. With climate change, this is particularly true: It is easy to imagine an electric utility, for example, that relies primarily on fossil fuel sources for its generation capacity — and thus faces significant transition risk — as also having capital equipment and facilities that are vulnerable to physical risks such as severe storms, droughts, floods, and sea level rise. Any single feature of this ecosystem of risks may not be judged to rise to the level of materiality, but taken together, it is much more likely that climate change presents a variety of risks and vulnerabilities that clearly do. Investors need that kind of information to make informed decisions.

We also believe that it is appropriate for the SEC to establish safe harbors for reporting Scope 3 emissions given that these will invariably have to rely on reporting from third parties. We suggest that the SEC might also wish to establish safe harbors for reporting on vulnerability to physical risks, given that these rely on a suite of climate models that are constantly being updated and refined, and the predictions they yield will vary.

While there is ample evidence that the predictive ability of climate modeling suites like CMIP6 and its predecessors have been fairly accurate in forecasting the incidence of a wide variety of physical risks,⁵ they are not and may never be able to predict the specific location and timing of any event or condition with precision. It would be unfortunate if companies were challenged in court for estimates of vulnerability to certain risks based on the limits of quantitative scientific modeling.

We also suggest that safe harbors be established for reporting on how companies are planning to reach GHG reduction targets. While near-term emissions-reduction activities may be reasonably well known, many targets extend to midcentury, and a lot can change in 30 years. As this is written, a lot of RD&D is being devoted to developing alternatives for hard-to-decarbonize industries such as cement, steel, aviation, and shipping; over the next decade or so, there may be many options available that are not technically proven or economically viable now. Options for tackling residual emissions toward the end of the 2040s also include things like direct air capture or carbon capture, utilization and storage options for companies and operations with no viable way to take emissions to zero, etc. Thus, it may not be entirely

⁵ See, for example, National Academies, “Climate Models Reliably Project Future Conditions,” [Climate models reliably project future conditions | National Academies](#); Alan Buis, “Study Confirms Climate Models are Getting Future Warming Projections Right,” NASA Global Climate Change, Jan. 9, 2020, [Study Confirms Climate Models are Getting Future Warming Projections Right – Climate Change: Vital Signs of the Planet \(nasa.gov\)](#); and Warren Cornwall, “Even 50-year-old Climate Models Correctly Predicted Global Warming,” *Science*, Dec. 4, 2019.

unreasonable for companies to include in a decarbonization target some of these options for later years. As time passes, we will know more about the viability of some of these options. So, it is reasonable for companies to at least begin thinking about these longer-term options,⁶ and doing so should not create legal liabilities for companies reporting on how they intend to achieve their decarbonization ambitions.

The Costs of Climate Risk Disclosure Remaining Voluntary

The SEC did a good job of estimating the costs of compliance with this rule. We understand that compliance may involve up-front costs to create systems for gathering and verifying data, and while some companies have been reporting on emissions for years, many others have not yet begun that journey. As more jurisdictions begin to require TCFD reporting, more companies will ascend the learning curve on emissions reporting more quickly, and the costs of reporting are likely to diminish. Many of the costs involved may be front-loaded, decreasing over time as companies gain familiarity with the process.

While requiring this reporting may involve significant costs, particularly in the short term, it is also important to acknowledge that there are costs to *not* having this information. As the impacts and costs of climate change, already substantial, continue to grow, not understanding the landscape of climate risk will be increasingly costly for both companies and their investors, as well as other stakeholder, like employees. At the moment, it is possible to gather information on the Scope 1 and 2 emissions for most large cap companies in developed country indices like the S&P 500, the Russell 1000, MSCI World, and even MSCI ACWI, and there are a few hundred large cap companies that report at least some Scope 3 emissions. To gain access to that information, however, investors must either scour company websites one by one or pay for data access through providers like MSCI, Sustainalytics, Refinitiv, Vigeo Eiris, and the Carbon Disclosure Project, which often involves substantial subscription fees.

Gathering information on vulnerability to physical risks is even more difficult. In 2021, Impax, in partnership with a large state pension fund, reached out to companies in the S&P 500, asking that they disclose the locations of any company assets whose loss or damage could be a material event. A few companies reported that they already did so, but for the most part, few companies report on this location information, much less any assessments of the vulnerability of their assets to physical risks. Of the approximately 80 companies we engaged with on this issue, we found only three that appeared to have actually examined their physical risk profile and reported on actions designed to manage or adapt to such risks.⁷

Many companies report very little on the locations of their operations, often mentioning only cities, countries, or regions. But even within a metropolitan area, vulnerability to physical risk can vary widely. For example, in a coastal city, vulnerability to sea level rise will be quite different for assets that are many meters above sea level compared to those whose properties are at the waterfront. It is also very common for countries to experience droughts and floods simultaneously in different areas; if a company only reports that it has operations in China, for example, investors might have no choice but to assign

⁶ We should remember that to keep warming below 1.5C or 2C, we will not only have to get to net zero emissions by midcentury, or the 2070s, but then we will have to reduce atmospheric GHG concentrations by removing those gases from the atmosphere, so we are likely to need technologies like CCUS and DAC eventually, even after achieving net zero emissions.

⁷ Julie Gorte and Matthew Wright, "Seeking coordinates: A unique engagement on physical climate risk," Impax Asset Management, Oct. 25, 2021. [Seeking coordinates: A unique engagement on physical climate risk - Impax Views - News & Views - Impax Asset Management \(impaxam.com\)](https://www.impaxam.com/news-views/seeking-coordinates-a-unique-engagement-on-physical-climate-risk)

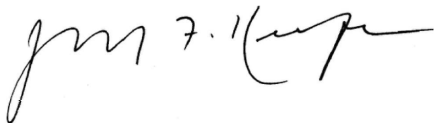
every physical risk to the company, even if none of its facilities is particularly vulnerable to a specific type of event. Gathering data on the locations of facilities alone can take hundreds of person-hours just to assess a single portfolio, often because investors are seeking information that does not exist — which actually makes the search process longer. That information is relatively straightforward for companies to disclose but laborious and time-consuming for investors to gather.

We believe this context will be important to keep in mind as the Commission creates the final rule.

Summary

Again, we commend the SEC for a well-conceived, well-supported proposed rule. Thank you for the opportunity to comment on this rule.

Sincerely,



Joseph F. Keefe
President
Impax Asset Management LLC



Julie Fox Gorte
Senior Vice President for Sustainable Investing
Impax Asset Management LLC